

Appl. No.: 10/530,271
Amdt. Dated November 24, 2008
Reply to Office Action of August 22, 2008

REMARKS

A. Introduction

Claims 1-13 were pending and under consideration in the application.

In the Office Action of August 22, 2008 ("the Office Action"), claims 1, 2, and 5 were rejected as anticipated, claims 3, 4, and 6 were rejected as obvious, claims 7-12 were rejected under 35 USC 112, and claim 13 was restricted. No references were applied against claims 7-12.

In response and without conceding to the merits of the rejections, various claims have been amended to clarify an aspect of the present general inventive concept, claims 8, 9, and 11 are cancelled, and claims 14-18 have been added. No new matter has been introduced.

B. Rejection under 35 USC §112

Claims 7-12 were rejected under 35 U.S.C. §112 due to recitation of the term "orientation." The claims have been amended to refer to a winding "direction" which clearly is discussed in the specification.

Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

C. Rejection under 35 USC §102(e)

As best understood by Applicant, claims 1, 2, and 5 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,771,533 to Witcraft et al. (hereinafter "Witcraft"). Reconsideration and withdrawal of the rejections are requested.

Independent claim 1 recites "said first writing line and said second writing line are wound reversed with respect to each other" and that they extend in opposite directions. While the Examiner argues that the language "wound reversed" is process language, the fact is that this language is within an apparatus claim and describes the orientation of the first and second writing lines. In other words, the writing lines are reversed with respect to each other, i.e., the start of the first writing line is adjacent to the end of the second writing line while the end of the first writing line is adjacent to the start of the second writing line. This is the result of the lines extending in directions opposite to each other. This is a structural difference that is separate

and distinct from the process of making. Notably, none of the art of record disclose or fairly suggest this structural limitation.

Witcraft is limited to a memory configuration (800) having first, second, and third row lines (610, 612, and 614) that have start lines adjacent to other start lines and end lines adjacent to other end lines. Thus, the lines are in the exact same position with respect to each other. See Witcraft, Fig. 8. Accordingly, Witcraft does not disclose or fairly suggest, among other things, "said first writing line and said second writing line are wound reversed with respect to each other" as recited in independent claim 1. While the Examiner argues that no structural distinction is made between the present general inventive concept and Witcraft, a simply viewing of the figures evidences that the Examiner's position is incorrect.

Witcraft figure 8 illustrates three rows of memory cell lines coupled to column lines 616, 618, and 620. The column lines are requires to connect adjacent memory cell lines so that each of the memory cell lines may be identically positioned with respect to each other. On the other hand, the writing lines of present general inventive concept are reversed, which provides a number of benefits including the elimination of the need for intermediary connecting lines as well as the elimination of problematic interference inherent in the identically positioned lines of Witcraft. Thus, the present general inventive concept allows storage data to be written precisely and with improved reliability. See the Specification, page 8.

Accordingly, because Witcraft does not disclose or fairly suggest all of the elements set forth in independent claim 1, independent claim 1 is patentably distinguishable over Witcraft, and withdrawal of this rejection and allowance of this claim are respectfully solicited. Likewise, claims 3-4, which depend from independent claim 1, and thus include all of the limitations of independent claim 1, are also patentable over Witcraft. In addition, at least claims 2 is patentable over Witcraft for its own limitations, as well as for depending from independent claim 1.

Claim 2 recites "a start-end portion of said second writing line is connected to a terminal-end portion of said first writing line." The Examiner incorrectly interprets this language as "first and second writing lines are connected at end points." The recited language is not limited to end points, but distinguishes one end point from another. Irrespective of how the lines were

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formed, the claims require adjacent lines connected to different portions of each other, which results in a structural difference as illustrated in Figure 2.

Accordingly, because Witcraft does not disclose or fairly suggest all of the elements set forth in claim 2, claim 2 is patentably distinguishable over Witcraft, and withdrawal of this rejection and allowance of this claim are respectfully solicited. Claim 2 is also allowable based on its dependency from independent claim 1, which is allowable for the reasons provided above.

In addition to the foregoing, applicants reserve the right to remove Witcraft as a reference by proving an invention date earlier than the earliest effective filing date of Witcraft.

D. Rejection under 35 USC §103

As best understood by Applicant, claims 3, 4, and 6 were rejected under 35 U.S.C. §103(a) as unpatentable over Witcraft in view of U.S. Patent No. 5,732,016 to Chen et al. (hereinafter "Chen"). Reconsideration and withdrawal of the rejections are requested.

The Examiner acknowledges that Witcraft does not disclose first and second writing lines that have parallel wiring portions which extend in a direction substantially parallel to a magnetized direction of fixed magnetization layers. Likewise, Chen also fails to teach such.

Witcraft is limited to a memory configuration (800) having first, second, and third row lines (610, 612, and 614) that run from one side of elements (802, 806, or 808, figure 8) to another side in a direction that is neither parallel or perpendicular to the elements (802, 806, or 808) without changing directions, which is not the same as "extending in a direction parallel to a magnetization direction of fixed magnetization layers" as recited in claim 3 or "extending in a direction perpendicular to a magnetization direction of said fixed magnetization layers...[and] parallel wiring portions extending in a direction parallel to a magnetized direction," as recited in claim 4.

Chen is limited to a device having lines (80 and 87) that also run from one side of an element (84, figures 8-11) to another side in a direction that is neither parallel or perpendicular to the element (84) without changing directions, which is not the same as "extending in a direction parallel to a magnetization direction of fixed magnetization layers," as recited in claim 3 or "extending in a direction perpendicular to a magnetization direction of said fixed

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magnetization layers...[and] parallel wiring portions extending in a direction parallel to a magnetized direction," as recited in claim 4.

Thus, the limitations of claims 3 and 4 not present in Witcraft are also not taught or suggested by Chen. The Examiner relies on Chen only to assert that it teaches "magnetoresistive device with coil-shaped writing lines 80/86/87 surrounding a magnetoresistive element 84, wherein the writing lines have parallel wiring portions which extend in a direction substantially parallel to a magnetization direction of fixed magnetization layer." See the Office Action, page 4. However, since Chen also does not teach or suggest the features which are lacking in Witcraft, including, "extending in a direction parallel to a magnetization direction of fixed magnetization layers," as recited in claim 3 or "extending in a direction perpendicular to a magnetization direction of said fixed magnetization layers...[and] parallel wiring portions extending in a direction parallel to a magnetized direction," as recited in claim 4, these claims are allowable over Witcraft and Chen, separately or in combination.

Accordingly, because the references do not teach or suggest all of the limitations recited in claims 3, 4, and 6, the rejections under 35 U.S.C. §103(a) in view of Witcraft and Chen are improper, and withdrawal of these rejections and allowance of these claims are earnestly solicited.

In addition to the foregoing, Applicants reserve the right to remove Witcraft as a reference by proving an invention date earlier than the earliest effective filing date of Witcraft.

E. New Claims

New claims 14-18 have been added. Support for the new claims can be found in the specification and drawings, for example, in Figs. 2-5 and corresponding portions of the Specification, e.g., page 8. New claims 14-18 recite features, which are not disclosed, taught, or suggested in the prior art of record.

Accordingly, it is respectfully submitted that new claims 14-18 do not present new matter and are allowable over the prior art of record, and allowance of these claims is earnestly solicited.

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F. Conclusion

It is respectfully submitted that a full and complete response has been made to the outstanding Office Action and, as such, there being no other objections or rejections, this application is in condition for allowance, and a notice to this effect is earnestly solicited.

If any further fees are required in connection with the filing of this amendment, please charge the same to our Deposit Account No. 19-3140.

Respectfully submitted,
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